



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,067	03/08/2001	Fumio Ohtomo	1710995	5284

24240 7590 07/09/2003

CHAPMAN AND CUTLER
111 WEST MONROE STREET
CHICAGO, IL 60603

EXAMINER

LUU, THANH X

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 07/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/802,067

Applicant(s)

OHTOMO ET AL.

Examiner

Thanh X Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8 and 10-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8 and 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8. 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 28, 2003 has been entered.

Claims 8 and 10-13 are currently pending.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: In Figure 13 "gradient θ " as described on page 1 and "7" as described on page 3; in Figure 9 "20A" and "20B" as described on pages 12 and 13; in Figure 10 "Z1'" as described on page 14. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: "10" and "Q" in Figure 13; Numerals "55-57" in Figure 3; "56" in Figure 8. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid

Art Unit: 2878

abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "85" has been used to designate "data collector" "radio receiver" and "radio communication unit" in Figure 10. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "84" and "85" have both been used to designate "data collector" in Figure 10; "79" and "85" have both been used to designate "radio communication unit" in Figure 10. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities:

On page 12, line 23, "layer beam" should be --laser beam--. Appropriate correction is required.

Claim Objections

7. Claims 8, 11 and 12 are objected to because of the following informalities:

In claim 8, "the laser beam now actually radiating" and "the reference laser beam radiated from said laser beam radiator" lacks proper antecedent basis.

Art Unit: 2878

In claims 11 and 12, "the pole to be placed in said first position" and "the pole to be placed in said second position" lacks proper antecedent basis.

In claim 11, "reference beam" and "the radiated reference laser beam" lacks proper antecedent basis. Further it is unclear how many reference laser beams are being generated as Applicant uses in the next to the last line "radiating a reference laser beam."

Appropriate correction is required.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 8 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ericsson et al. (U.S. Patent 6,175,328) in view of Applicant's admitted prior art (Figure 13), hereinafter, AAPA.

Regarding claims 8, 10 and 11, Ericsson et al. disclose (see Figure 1) an apparatus, comprising: a survey equipment (1), a first GPS unit (2, 3) for detecting a position of a survey equipment to detect a reference position; a second GPS unit (2, 3 on 6) for detecting a position at which the second GPS unit is arbitrarily placed, wherein the survey equipment has a receiver (3) to receive data on position obtained by the first GPS unit and the second GPS unit, and an arithmetic means (computer) to calculate based on the data on position received from the receiver, and the first GPS unit and

Art Unit: 2878

second GPS unit have a radio communication unit (see column 4, line 26) capable of transmitting the data on respective positions of the first and second GPS units, wherein the second GPS unit is arbitrarily placed at a first position (see column 3, lines 5-25) and its position is detected by the arithmetic means so as to determine the direction of the survey equipment, the second GPS unit is then moved and placed in a second position (see column 4, lines 32-40), so that the arithmetic means detects the direction of the survey equipment, the arithmetic means calculates an angle between the first position and second position as claimed (see column 3, lines 5-40), the survey equipment is rotated (locked on) to the direction of the second position to the first position based on the angle. Ericsson et al. also disclose (see Figure 1) the second GPS unit comprises a pole (at 6) and a target (7). The language of pipe installation is drawn to intended use and thus has no patentable weight. That is, since the structure of the apparatus is disclosed by Ericsson et al. the device could be used in any type of application. Ericsson et al. also discloses a reflector on the second GPS unit to provide tracking for the surveying equipment but do not specifically disclose the survey equipment radiating a laser beam. AAPA teach (see Figure 13) a survey equipment (6) that radiates a reference laser beam towards a reflector (12a) in order to track the position of the target (12). Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the survey equipment of Ericsson et al. to more accurately track and find the target.

Regarding claims 12 and 13, Ericsson et al. disclose the claimed invention as set forth above. Ericsson et al. do not specifically disclose using the same pole in the first

Art Unit: 2878

and second position. However, it is well known to reuse parts in order to reduce costs.

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to reuse the pole in the first and second position in the apparatus of Ericsson et al. to save costs.

Response to Arguments

10. Applicant's arguments with respect to claims 8 and 10-13 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is (703) 305-0539. The examiner can normally be reached on Monday-Friday from 6:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta, can be reached on (703) 308-4852. The fax phone number for the organization where the application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

txl
July 8, 2003


Thanh X. Luu
Patent Examiner